

AMATEUR RADIO

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1950

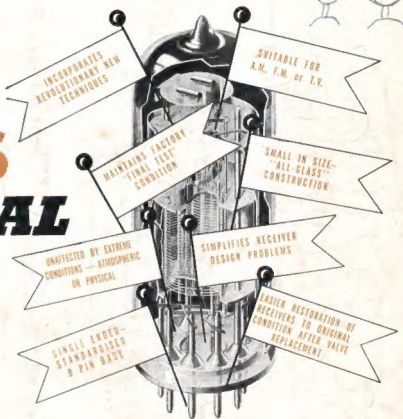
JOURNAL OF THE WIRELESS INSTITUTE OF AUSTRALIA

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EDITORIAL



The rapid post-war increase in the number of licenced Amateurs has reduced the elbow room available for operation on restricted bands when conditions are good.

The "Gentlemen's Agreement," providing for voluntary reservation of portion of each band for c.w. operation, was promoted by your Federal Council with a view to giving c.w. operators a channel comparatively free from phone QRM. Naturally the success of any plan of this nature depends upon the whole-hearted co-operation of the individual. Hence the success of the present plan rests with YOU and every other active Operator.

The major QRM problems in each and every band are created by—"Inane Earbashing," "Splatter," and "Poor Operating Techniques."

"Inane Earbashing" we will leave to the conscience of the individuals concerned—perhaps when the housing shortage is overcome the aforesaid earbashers will be able to lean on the dividing fence once more.

"Splatter" can be avoided if every law abiding Amateur makes proper use of the monitor demanded by the conditions of his "Station Licence;" therefore no excuses should be proffered or accepted for such offences.

"Poor Operating Technique" is only excusable if the offender is a newcomer to our ranks; however, observation indicates that the chief

offenders in this direction are experienced operators or the swaggering type, who satisfy their ego by adopting irregular and individual procedures, which are in many cases in somewhat doubtful taste. Unfortunately some of the younger members who join the Amateur ranks are apt to adopt this slap happy style rather than the more sober procedure designed to give everyone the maximum enjoyment of our hobby.

Federal Executive suggests that in order to promote goodwill and good operating, instead of advocating return to the "probationary period on c.w." (which can never be justified on technical grounds) each and every Amateur should:—

- Make a point of getting to know personally each of the new licenced (Radio Amateur type) in his district.
- Help all newcomers along the road to good operating instead of shunning them as if they were interlopers in our ranks merely because of slowness on the key or hesitancy in phone procedure.
- If unable to help your neighbour solve his technical problem, introduce him to someone who can do so.
- Practice the Amateur Code.

Let's make goodwill and good operating a certainty by adopting a co-operative attitude towards all fellow Amateurs, old and new alike.

FEDERAL EXECUTIVE

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LOGARITHMIC COMPRESSOR

Aids in Preventing Overmodulation While Increasing Signal Effectiveness

Every phone man, at some time in his QRM-ridden life, has wished that he had a small switch available which would permit him magically to increase his power tenfold. This would be Utopia—from one kilowatt to ten kilowatts by pressing a button.

This button is now available, and it is mounted on the front of the Logarithmic Compressor. This unit will give an effective signal gain which is adjustable from a few db up to as much as ten db (ten to one in power).

The Logarithmic Compressor is an audio amplifier device which is inserted between your microphone and your present speech amplifier. Its function is to push up the average modulation level, with the result that high percentage modulation is assured at all times, regardless of the sound level reaching the microphone.

COMPRESSION VERSUS CLIPPING

Those familiar with clippers or clipping circuits can see that the Logarithmic Compressor is intended to do the same sort of job as a clipper. There is, however, an important difference between logarithmic compression as used in the Logarithmic Compressor and clipping.

Fig. 2 compares the characteristics of the two different systems. In either case the input wave suffers distortion, but the distortion caused by the clipping action of the ordinary diode type clipper (Fig. 2B) is worse for a given amount of signal compression than that caused by the logarithmic compression of a copper-oxide instrument rectifier (Fig. 2A).

Distortion present in either circuit will add "harshness" to speech signals and without further treatment would result in excessively broad signals. Therefore, any distorting type circuit should be followed by a suitable filter to prevent the high frequency products produced by this distortion from reaching the modulated stage. With such a filter much of the "harshness" will still be present but the radio frequency signal need not be broad. The harshness results from cross modulation (distortion) products that lie within the pass band of the filter.

The advantage of the logarithmic compression system is that the distortion is less severe (for a given amount of compression) than the clipper type, and this makes possible the use of a vastly simpler filter arrangement. Three "stages" of R-C type filtering used in the Logarithmic Compressor are as effective as more elaborate sharp-cutoff types of L-C filter virtually necessary with the clipper type of circuit.

Further, the transient response of the R-C type filter is such that no overshoot of signal peaks can occur. This is not the case with sharp-cutoff L-C filters. This means that the logarithmic compressor circuit with a properly designed R-C filter is superior to the ordinary

FEATURES—

- Provides 10 db increased effectiveness;
- Uses self-contained speech-range filter;
- Three tubes, including rectifier;
- Small size—space saving.

In keeping with our policy of re-printing worthwhile articles from overseas publications, we present the following article in G.E. "Ham Hints," May-June, 1950.

For those Hams who possess a modulator and speech amplifier, but desire the advantages of speech clipping, this unit will enable them to obtain the advantage of clipping without pulling their present gear about, as it is simply inserted between the microphone and pre-amplifier.

The 12AT7 high- μ twin triodes specified are at present difficult to obtain in Australia, but we understand they will be obtainable soon. The nearest equivalent is the 6SL7, and we would like to know how this circuit works out with these valves so that the information can be passed on to our readers.

clipper circuit followed by a sharp L-C filter. Repeated tests confirm this statement.

CIRCUIT DETAILS

With reference to Fig. 3 it will be seen that the first 12AT7 acts as a two stage audio amplifier to bring the signal from the microphone to a sufficient level so that the compression circuit itself operates at the proper level. Resistor R1 in the first stage has been added as a precaution against r.f. feedback.



Fig. 1.—The Logarithmic Compressor ready to plug into your present microphone jack. Controls are, left to right, in-out switch, compression control, output control and a.c. on-off switch.

Special care has been taken to attenuate low audio frequencies prior to compression. Doing this gives a well balanced speech response as well as minimising much of the distortion caused by cross-modulation between the low speech frequencies and the intelligence-bearing high speech frequencies. The values of condensers C2, C3, and C4 are chosen to attenuate the low frequencies adequately before speech compression. Condensers C7 and C9 serve the same purpose after compression has taken place.

Resistor R4, by varying the signal input to the second section of the first 12AT7, enables control of the amount of compression.

The audio transformer, T1, is necessary because the limiting circuit must be fed by a low-impedance, low-resistance source. Using the centre tap on this transformer, accomplishes this function.

The actual limiting or compression circuit consists only of R7 and W, the latter being two sections of a copper-oxide instrument rectifier. Resistors R8 and R9, together with condensers C5 and C6 act as a two-section R-S filter. The output of this filter feeds the second 12AT7 directly. Resistor R12 acts as an output control so that the output level from the speech compressor may be made to match the output level of the microphone. Thus when the speech compressor is switched out of the circuit no other adjustment need be made.

The output tube is required for two reasons. It is necessary to present the proper load to the two R-C filters and, secondly, to permit a third R-C stage to be utilized. Inasmuch as the second section of the 12AT7 tube is not used this may seem like wasting part of the tube, but the use of a high- μ triode was dictated and the 12AT7 fills this requirement nicely. Note that the heater of the unused section need not be energised. Many uses for this extra tube section will undoubtedly suggest themselves.

The in-out switch, S2, allows the unit to be switched in and out of the circuit easily. Note that shielded wire is specified for the connections to this switch. The output itself is carried by a shielded lead which plugs into the mike jack of any speech amplifier designed to handle a high impedance dynamic or crystal microphone.

The power supply is conventional in all respects. Because of the low current drain on the power supply a resistor-capacitor filter is employed. Resistor R18 and condenser C11 provide decoupling and additional filtering for the first 12AT7 section plate voltage.

The connections indicated by the heavy black lines in the power supply section should all be made to one ground point. This will prevent the chassis from carrying the circulating capacitor current and help to keep the unit hum-free.

CONSTRUCTIONAL DETAILS

As may be seen from the photograph, the entire unit, including power supply, is mounted on a 5 by 7 by 2 inch chassis. While the layout is not critical, it is advisable to keep the power supply portion of the circuit as far away from the rest of the circuit as possible. The layout shown is quite satisfactory.

With reference to Fig. 1, the front panel layout, from left to right, is: mike jack, output lead, in-out switch, compression control, output level control, AC on-off switch and AC cord. The tubes are, left to right, input 12AT7, output 12AT7 and 6X5 rectifier. Note that the two 12AT7 tubes are shielded. Resistor R1 (underneath chassis) is placed as close to the grid pin as possible.

The wiring can be made simpler if the unused leads from the power transformer are pulled inside the transformer case and securely taped to avoid shorts. This was done with the 2.5 volt and the 5.0 volt windings.

The unit pictured uses a bottom cover plate for the chassis. This is recommended to avoid RF feedback. Any sort of thin metal will serve for this purpose, if your chassis comes without a bottom plate.

COMPONENT PARTS

While no extremely critical values are required, it is recommended that the specified values be used in all cases. For example, C2 and C7 are specified as 1.0 μ F. condensers. If lower values were to be used, the frequency response would suffer, and if higher values were used, the result would be insufficient low-frequency attenuation.

Almost any sort of push-pull plates to voice coil transformer will serve as T1. Wattage rating of this transformer is not important.

If possible, linear taper potentiometers should be used at R4 and R12. This sort of taper will give a smoother action than other types of taper.

Care must be taken in purchasing the limiter rectifier, W, because instrument rectifiers come in several different styles. Basically, of course, they are used to make AC meters out of DC meters. However, they can be purchased as half-wave units, doubler units, full-wave units and bridge units.

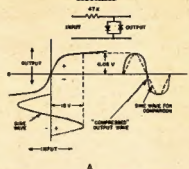
Two separate half-wave units, connected as shown, will work, and the bridge-rectifier style will work if the proper leads are used. The "full-wave" unit will not serve because the two diode sections are connected improperly. In the doubler type rectifier the two diode units are connected as shown in Figs. 2 and 3 and therefore this type of instrument rectifier would be the best to use.

COMPRESSION ADJUSTMENT

The adjustment of the Logarithmic Compressor is done very easily. Plug in a mike and place the in-out switch, S2, in the "out" position so that the microphone is connected directly to your speech amplifier, then follow these three steps:—

● Adjust the audio gain control on the transmitter for normal modulation as seen on an oscilloscope (the best method) or some other instrument worthy of trust.

Transfer Characteristics of Back-to-Back Copper Oxide Instrument Rectifier



Transfer Characteristics of Usual Diode Clipper Circuit

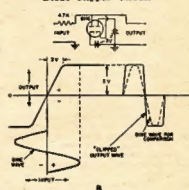


Fig. 2.—A comparison between the output waveform of a Logarithmic Compressor and a diode clipper.

● Put the output control on the unit to zero and set the compression control so that it is about half open. Switch the compressor to "in" and advance the output control while speaking into the microphone until the peak modulation is the same as in step 1. While an oscilloscope is not absolutely necessary in order to make this adjustment, it is strongly recommended.

● Adjust the compression control so that the average plate current in the modulator stage on a sustained "00000—0" is, say, not over twice that obtained with the compressor out. Then try compressor "in" and "out" on a few QSOs to find the best operating point of the compression control for the microphone you are using and the receiving conditions prevalent at the other fellow's QTH.

USE OF THE COMPRESSOR

With the Logarithmic Compressor in use the modulator tubes are required to handle much more average power than usual. In fact, it is possible that your modulator stage will not be capable of handling the extra average power required. Careful checking with an oscilloscope will determine if this is the case.

As a general rule, if your modulator can handle a sine wave signal at 100% modulation, then the average power capability of your modulator is adequate for use with the Logarithmic Compressor. (After all, this ten db gain has to come from some place!) This means that, for a kilowatt rig, your modulator should be capable of continuous operation at 500 watts output at 1,000 cycles. For lower powers the same ratio holds.

In operation the compressor must be used with judgment—good judgment that is. Too much compression may make an otherwise acceptable signal almost intolerable. With a judicious amount of compression one can expect to add from 6 db (4 to 1 in power) to 10 db (10 to 1 in power) in the effective-

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SUPERVISING TECHNICIAN (RADIO-RADAR) GRADE I

Wanted, Supervising Technician (Radio-Radar) Grade I, for each of the Scientific Stations at Heard and Macquarie Islands. Salary range £612 to £866 plus special hardship allowance. Clothing, food and amenities provided. Period of stay approximately twelve months. Applicants should possess an appropriate University degree or technical diploma and should have a thorough knowledge of practical electronics. They will be required to service and maintain radio and radar equipment and radiosonde transmitters and receivers, and will also be required to act as senior wireless telegraphists. The appointee to Macquarie Island will be required to operate ionospheric equipment and take an interest in this branch of research. Applicants must be young and healthy and interested in outdoor activities such as walking, ski-ing, mountaineering, etc. Full details on application to the Officer-in-Charge, Antarctic Division, Albert Park Barracks, St. Kilda, S.C.S. Victoria.

W/T OPERATORS

Wanted, four W/T Operators to staff the radio stations at Heard and Macquarie Islands.

Salary range £552 to £576 plus special hardship allowance. Clothing, food and amenities provided. Period of stay approximately twelve months. Applicants should be fully qualified and must be young, healthy and interested in outdoor activities such as walking, ski-ing, mountaineering, etc. Full details on application to the Officer-in-Charge, Antarctic Division, Albert Park Barracks, St. Kilda, S.C.S. Victoria.

ness of his signal provided conditions at the receiving point are such that understandability without the compressor is impaired by QRM or high background noise.

RESULTS WITH THE COMPRESSOR

In many months of test at W2KUJ the following information has been

obtained. Nearby stations, or stations not experiencing QRM, prefer that the compressor **not** be used. Stations receiving a weak signal or listening through severe QRM prefer that the compressor be used.

Reports from the latter stations range from eight to ten db jump in effective signal strength when the compressor is

switched in. Reports from nearby stations are that the signal is **louder**, but somewhat less readable with the compressor in use than without it.

In no case has a report been given that the signal was broader when the compressor was used, even when this question was asked of nearby stations.

Tests made at W2RYT's shack indicate that different microphones give somewhat different results when used with the compressor. For example, an Electro-Voice Model 805 dynamic mike and an Electro-Voice Model 915 crystal mike seemed to have identical speech characteristics (although the dynamic mike had less output) when used without the compressor.

When used with the compressor, the dynamic mike was found to have a speech quality which was less harsh than that of the crystal mike. Further, it was found advisable to advance the compression control with the dynamic mike.

The foregoing is not intended as a recommendation for dynamic mikes, nor is it intended as an authoritative comparison between two Electro-Voice microphones. The comparison has been made to emphasise the importance of testing your compressor carefully with each microphone you may use with it.

In summary, one can expect to boost the effectiveness of his signal when it is needed most by use of the compressor (it frequently means the difference between making a contact or not) with some decrease in ease of reading the signal where the compressor is not needed.

Bear in mind that the compressor can be misused (to your disadvantage). Seek honestly to find the operating points which best exploit its use. In many cases it is best to **not** use the compressor. But in those cases where it is needed, the Logarithmic Compressor can really do a job for you.

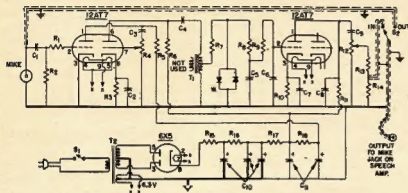


Fig. 3.—Circuit diagram of the Logarithmic Compressor.

CIRCUIT CONSTANTS

(All resistors and capacitors $\pm 20\%$ tolerance unless specified otherwise.)

- C1, C9—0.01 μ F. 400 volt paper or mica
- C2, C7—1.0 μ F. paper (see text)
- C3—1000 pF. mica.
- C4—0.05 μ F. 400 volt paper.
- C5—1000 pF. $\pm 10\%$ mica.
- C6—100 pF. $\pm 10\%$ mica.
- C8—0.005 μ F. $\pm 10\%$ mica.
- C10—16 μ F. 450-volt electrolytics (see text).
- C11—8 μ F. 450 volt electrolytics.
- R1, R14—10,000 ohm, $\frac{1}{2}$ watt.
- R2—10 megohm, $\frac{1}{2}$ watt.
- R3, R10—470 ohm, $\frac{1}{2}$ watt.
- R4—0.5 megohm potentiometer.
- R5—0.1 megohm, 1 watt.
- R6, R11—47,000 ohm, 1 watt.

- R7—47,000 ohm, $\frac{1}{2}$ watt.
- R8—56,000 ohm, $\pm 10\%$, $\frac{1}{2}$ watt.
- R9—0.56 megohm, $\pm 10\%$, $\frac{1}{2}$ watt.
- R12—0.1 megohm potentiometer.
- R13—0.47 megohm, $\frac{1}{2}$ watt.
- R15—470 ohm, 2 watts.
- R16—2,200 ohm, 2 watts.
- R17—1,000 ohm, 1 watt.
- R18—4700 ohm, 1 watt.
- S1—SPST toggle switch.
- S2—SPDT toggle switch.
- T1—Push-pull plates to voice coil audio transformer (see text).
- T2—Power transformer, 300-0-300 volts at 50 mls., 6.3 volts at 2 amp.
- W—Copper-oxide instrument rectifier (see text).

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Extracting the Watts

BY E. A. CHARLES,* VK5YQ

With the receiver problem out of the way (August "A.R."), thoughts turn to the transmitter and output efficiency. There are many ways of feeding various antennae and checking the S.W.R. to affect the matching of the transmission line to the antenna. This is a most necessary pre-requisite to efficiently loading the transmitter, as well as ensuring that the antenna system **only** is doing the radiating. However, the usual antenna tuner has been left in its pre-war form—a high L/C circuit designed for both series and parallel tuned feeders.

The usual antenna tuner was constructed on similar physical lines to the final p.a. tank. The Amateur was not concerned with loss of fidelity due to attenuation of high frequencies—side-band cutting. A high impedance tank was required for voltage-fed resonant lines for Zepp fed aeriels and multi-band operation.

With the introduction of low impedance, un-tuned, non-resonant lines, the way out was to feed them by either tapping down the antenna tuner tank, or by inductively (link) coupling the transmission line. More often, an antenna tuner was not considered, if, by pushing a one or two turn link into the final tank, it "loaded." If it didn't, the coupling was increased until it did "load," or, the new aerial (or transmission line) was immediately condemned!

With the availability of 300 ohm twin lead, or the economy and free-from-weather-effect of home-constructed 300 ohm transmission line, its flexibility makes it a natural choice. It has low

losses, freedom from radiation, and freedom from unbalance due to proximity of grounded objects. So, you leave tuned feeders and full-wave Zepps to the countryman, the old-timers and experimenters like the VK5 "Umbrella-Man," putting your antenna system, whatever it may be, wherever most suitable, without any worries where the feed line must go.

Now, let us see what else is required. The object is to draw power from the p.a. and put all possible into the antenna (again remembering that **only** when the line is matched to the antenna feed-point impedance will all that power go into the antenna). In addition, we also desire:—

- (a) The most efficient transfer of power;
- (b) Absence of b.c.l. interference;
- (c) Absence of harmonic radiation (and t.v.i.);
- (d) If possible, multi-band operation.

With the transmitter itself properly tuned, (b) and (c) are taken care of by link coupling and a Faraday shield. It is a simple matter to install the popular 75 ohm co-ax line, using the outer braiding to form a Faraday shield. However, you must ensure that the antenna tuner is not within the field of the p.a. tank, or the effect of the Faraday shield is lost. It does not have to be co-ax line—you can shield a loop with braid (and insulate it) and earth it, running twin lead to the antenna tuner, unshielded when it is out of the p.a. pick-up zone. And it does not have to be exactly 75 ohm line, for a short line (compared to a quarter wavelength at the operating frequency) similarly terminated each end, reflects the same impedance both ends.

The reason for the figure 75 ohm, is because the antenna tuner is a parallel-tuned two turn coil (2" inside diameter, spaced wire diameter, heavy copper wire or tubing, silver plated if possible). The single turn link becomes the primary of a 1:2 turns/voltage step-up transformer; which is a 1:4 impedance step-up. Four times 75 equals 300—right on the beam for our 300 ohm line.

For plate-modulated phone, a p.a. tank with a loaded Q of 12 is desirable. An optimum practical coefficient of coupling of 0.09 makes the antenna tuner with a loaded Q of 10, so for parallel resonance, the capacity required equals: $C = \frac{Q}{2\pi fR}$. Remembering, again, only where our antenna is matched to the line (which now behaves as a purely resistive load at the operating frequency—300 ohms).

The capacities in circuit to resonate our antenna tuner with parallel tuning are:—

Ten Metre Band	100 pF. approx.
Twenty Metres	350 pF. approx.
Forty Metres	900 pF. approx.

Since it is a low-voltage tank, a receiving type condenser will be satisfactory—a 0.0005 usual b.c. type is OK. One that can be mounted with equal capacity between fixed and moving plates to earth is preferred. For tuning forty metres, a 0.0005 fixed condenser in parallel is required (for forty metres can be series-tuned by having a capacity of approximately 7 pF. in series with one leg of the 300 ohm line—the parallel capacity out of circuit).

The capacities are given as approximate, as they will depend, in actual working conditions, on the extra amount of inductance present in the circuit represented by the actual length of leads from the coil to the condenser. The parallel capacity will usually be a small percentage less. However, if the antenna loads way off the capacity shown, you haven't remembered! Or, if you have, you haven't done anything about matching the line to the antenna—you have got a poor S.W.R.! So get to work with a twin-lamp!

Assuming you have a low S.W.R., you will find that you will have the same or a little better line current as when using the high L/C type antenna tuner. After all that was really like putting in a power transformer when all that was required was a 2.5v. to 6.3v. auto-transformer!


To refresh your memories, the line current to be expected is calculated from $P = I^2 R$, where R is your line Z when flat. So, if you are running forty odd watts to an 807, then an output of 30 watts is pretty good, giving 0.32 Amp. in the 300 ohm flat line to the antenna.


$$I = \sqrt{\frac{P}{R}}$$

For you 100 watt men, unmodulated line current of 0.5 Amp. is the order of the day. If you have any more on an accurate RF meter, it means either (a) you have standing waves, or (b) the R.I. is away on annual leave!

Put up a folded dipole for each band desired, you know that is well matched.

* 193 Young Street, North Unley, S.A.





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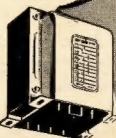
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THAT ENSURE SAFE AIRWAYS

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Tribute from Postmaster General

The following letter has been received from the Postmaster General personally commending the Amateurs on their valuable service to the people of Australia concerned in the recent floods in New South Wales.

The Postmaster General says: "In a recent broadcast over 2KM Kempsey in connection with the recent widespread floods in New South Wales, I made appreciative reference to the assistance given by the licencees of Amateur Wireless Stations."

He then continues, "Since then, I have received further information of the part played by members of the Institute, both in the Kempsey area and also in other parts of the State affected. Accordingly, I would now like to confirm in writing the sentiments expressed over 2KM, and to say how pleased I am with the readiness shown, once again, by Amateur Operators to perform a public service, in times of emergency, with the facilities for which they are licensed."

Federal Executive, on behalf of all the Amateurs, have great pleasure in conveying the contents of this letter to members and, on behalf of the Wireless Institute, of thanking those members who participated in this public service for stricken people in the flood areas. Keep up the good work of having reliable equipment available for times of national emergency. It is gratifying to receive such tribute from the Postmaster General and to know that the activities of Amateurs are held in such esteem by high authority. Let us pursue our hobby always on a plane that will maintain this happy relationship.

Moorabbin & District Radio Club's Honorary Membership Certificate

For the past few weeks the Moorabbin Radio Club has been publicizing their publicity scheme in relation to Honorary Membership Certificates. The rules appear below and would suggest that you read them carefully. This is not a competition, but just a thought to foster goodwill among Hams.

The Moorabbin Club has a membership of over 80 including 35 active Hams, working from 30 to 2 metres. The meeting nights are as follows: Second Friday in the month is the practical night, and the third Friday is the general meeting. Club rooms are at the Town Hall, Nepean Highway, Moorabbin. The club's call sign is VK3AFC.

RULES OF AWARD

Object.—To promote interest and friendship in VK3 contacts.

1. There are many active transmitting members of the club and to become eligible for the award, Australian members must be contacted by radio, 14 member stations, including the club's call sign VK3AFC.

2. Overseas stations, including ZL and Pacific Islands, to contact any 12 member stations by radio, phone or c.w., not necessarily including the club's call sign, VK3AFC.

3. The contacting station to ask if the VK3 being contacted is a member of the Moorabbin and District Radio Club, and then contacted member station may give explanatory details relating to the award.

4. On completion of the required number of contacts, the contacting station to give the 14 of christian names ONLY, together with dates of all contacts, to the final station.

5. After checking with logs of named stations and finding correct, a certificate of honorary membership will be awarded.

6. Honorary membership will allow all privileges of full membership less the power of vote.

7. This award is not available to club members.
8. Rules and conditions of this award may be amended where necessary (as outlined in Constitution No. 3, paragraph H) by a notice of motion, one month prior to being put to the vote, at a regular meeting of the club. After being duly passed by a majority of its members, the amendments will come into force.

THE EDYSTONE "750" COMMUNICATIONS RECEIVER

Selectivity.—The answer to the problem of obtaining high adjacent channel selectivity with freedom from image interference is to adopt the double superhetero principle as has been done in the "750" receiver. The first i.f. is 1850 Kc. and the second is 50 Kc. At the intermediate frequency, the coupling between the coils can be varied mechanically to give a wide range of selectivity. At the extreme, the coupling can be down to 5 Kc. of resonance, giving a very sharp cut-off and almost the highest usable degree of selectivity. This position is for c.w. reception—telephony is still readable but the sidebands are cut to a considerable extent.

With the selectivity control at minimum, the response is 30 db down at 5 Kc. of resonance. This is a very high level, much higher than average selectivity and telephony stations only a few kilocycles apart can be separated easily, whilst maintaining moderately good audio quality. As a matter of interest, provided the loudspeakers and accessories are used, properly mounted, the quality of speech and music from broadcast stations will satisfy all but the most critical.

Sensitivity and Signal-to-Noise Ratio.—These two features are being dealt with as one, since it is pointless to quote only sensitivity, without reference to the noise level. By adding valve after valve to a receiver, the absolute sensitivity can be increased but whether any worth-while improvement in the signal-to-noise ratio is obtained depends on how much the noise level increases. Which leads to a point about amplifying sensitivity. Most well designed communications receivers will render audible signals of less than 10 microvolts, but the sensitivity is low, the "distortion" is really useful only when a figure is quoted in comparison with noise. The "750" minimum noise level and sensitivity is quoted as 5 microvolts for a 50 db signal-to-noise ratio—which is an extremely good figure. It simply means that a comparatively weak signal is audible against a very quiet background and this is one of the most noticeable and useful characteristics of a receiver which immediately claim attention when one comes to use the "750".

It is normal for the sensitivity to vary to some degree over such range of a receiver. Sometimes the variation is great, but in the "750" the interchange of components have been adjusted so that the variation is small. Maintenance of accurate tracking of the tuned circuits and the assistance considerably in this respect.

Valves.—Of recent years much research has taken place in the development of improved valves and the modern miniature valves are better than ever before. One is the most lead-out wire, resulting in low induced noise, another the lower noise grid capacity, achieved by the use of better materials and factors which materially assist in improving the high frequency performance. In the "750," nine miniature valves are employed, plus a rectifier and a neon indicator. The latter being of the neon type.

Grid Line-Up.—By reason of careful design and the use of a high slope 6BA6 valve, the r.f. stage gives amplification of 100 db. The gain is more than sufficient for all normal purposes and the addition of a second stage, is not justified.

The following is a brief description of the tuning position. ECH41 (triode) is the first stage. The anode of the triode portion is earthed and the oscillator voltage, developed by a separate valve (6AK5) is injected into the grid. As a result, the degree of frequency stability is thereby secured.

The output at 1850 Kc. from the i.f. transformer in the second circuit is fed to the grid of the second frequency changer, another ECH41. Now some may question the absence of an intermediate amplifying stage, as a few words on this will not be out of place. The effect of the amplifying stage will be of benefit depends on the signal voltage required at the grid of the second frequency changer to ensure a high signal-to-noise ratio. In the "750" the high gain given by the r.f. stage, the good conversion efficiency of the first frequency-changer, the high cut-off and voltage magnification given by the 1850 Kc. transformer, and the high voltage at the grid of the second frequency-changer being adequate without further amplification.

The output of the second frequency-changer stage at a fixed frequency of 1585 Kc. and the resulting output at 85 Kc. is fed to a high "Q" i.f. transformer and the secondary of this transformer is coupled to the grid of the 6BA6 high slope valve. The coupling between the two i.f. transformers are continuously variable by a mechanical linkage controlled by a butterfly knob on the front panel.

There follows a double diode triode, the diodes being employed one for signal detection, the other for a rectifier action. The signal voltage of the audio signal before it is passed on to the high slope 6X7 output valve. The latter is a new type of Osram manufacture and is capable of giving in excess of 3.5 watts output at a low level of distortion.

One diode of a type 6AL5 valve is used as a servo noise limiter, and as a result of the careful attention given to the design, this limiter is strikingly effective and is a great boon in situations where automobile ignition and similar interference is present. The noise limiter has only a slight effect on the general audio level.

The second diode is connected in series with the external "S" meter (when used). By its normal rectifier action, it prevents the flow of current in a reverse direction, and thus prevents the possibility of damage to the 500 microampere movement fitted to the "S" Meter.

The 6BA6 valve is a completely screened unit, utilising a 6BA6 valve and designed for high stability. The VR150/80 stabiliser valve regulates the h.t. voltage to the anodes of the oscillator valves, to the screen of the first frequency-changer valve, and also to the resistor network associated with the "S" Meter when the latter is used. Finally, there is a 5Z10 rectifier valve.

Special Points about the "750." Attention has already been drawn to the high selectivity and sensitivity possessed by the "750" receiver and there are a number of other features which deserve mention.

The heater circuits are balanced, the centre tap of the transformer winding being earthed. Heater by-pass condensers are used wherever necessary and stray couplings through the heater wiring minimised. As a result, there is a complete absence of modulation hum right up to the highest frequency—signals with "S" meter are heard as 75. The smoothing of the h.t. line is fully adequate and no hum is heard from this source.

The h.f.o. is a completely screened unit, utilising a 6BA6 valve and designed for high stability.

The VR150/80 stabiliser valve regulates the h.t. voltage to the anodes of the oscillator valves, to the screen of the first frequency-changer valve, and also to the resistor network associated with the "S" Meter when the latter is used. Finally, there is a 5Z10 rectifier valve.

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Special attention has been given to the noise limiter circuit, not only to make it fully effective but also to prevent the introduction of hum due to heater/cathode leakage. A separate centre tapped winding is employed for the noise limiter valve and a bias system is arranged to ensure that the cathode is positive to the heater.

The transformer fitted to the "750" is of generous size and is capable of providing more power than the "750" actually uses. The transformer therefore runs cool under any conditions. All components are treated for tropical use, the metal has been specially treated to resist corrosion and reliability of a high order is assured even when the receiver and its accessories are used in areas of high ambient temperature and humidity.

Tuning Mechanism.—The train of spring-loaded gears forming the tuning mechanism is a fine piece of small engineering. The control knob episode is finely loaded and the movement is smooth and positive. The mean reduction ratio between control knob and gang condenser spindle is approximately 100 to 1, which makes for easy and accurate tuning. The scale is directly calibrated, a noticeable feature being the linear spacing of the markings. The dial is large, occupying the major portion of the front panel, and is clearly illuminated by three small lamps fitted along the top.

Band Spread.—Driven from the main gears is a rotating scale, the graduations on which (0-100 divisions) are read off the scale at the top of the main scale. For every complete revolution of the auxiliary scale, the main pointer moves the length of one major division printed at the bottom of the main scale. In all, the band-spread scale covers 1,500 divisions over each wave range, equivalent to a length of about 30 feet. It follows that ample band-spread is available on each of the Amateur bands, the actual figures being given below. These are based on the allocations made at the Atlantic City Conference.

Tuning Band Width	Variable Vernier Scale	Vernier Divisions	Kc.
29.7 to 28 Mc.	100	100	460
21.45 to 21 Mc.	7.5	75	48.5
13.35 to 12 Mc.	8.45	85	350
7.3 to 7 Mc.	3.6	36	300
4 to 3.5 Mc.	2.1	21	180

Absence of Crystal Filter.—The selectivity given by the "750" receiver with the control at maximum is so great that it is hardly necessary to employ an effective use of any greater degree. It is therefore not necessary to go to the expense of adding a crystal filter, with its attendant complications.

Operation as a variable selectivity receiver, at medium and low noise level, the "750" receiver is the ideal for those whose interest lies in the reception of weak telephony, either from Amateur Stations or from far flung stations with strong natural signals. The use of such transmitters can be enhanced by careful adjustment of the selectivity control, which should be used with strong natural signals, where interference is not present. Unfortunately, under present day conditions, interference is a major problem and occurs only too often. When the selectivity control towards maximum will gradually cut it out and only in extreme cases will it be necessary to use the highest possible selectivity.

Automatic Gain Control in the "750" is most effective and the audio output from a given signal is held within close limits despite severe fading.

C.W. Operation.—Some experience is necessary with any receiver if maximum results are to be secured and the "750" is no exception to this rule. When the h.f.o. is switched on, a.c. is cut out and the selectivity control is set to minimum selectivity, the i.f. transformer couplings are optimum and there is rather more i.f. gain available than is required under normal circumstances, hence i.f. gain should be reduced manually.

In the majority of cases, it will be advantageous to use a high degree of selectivity and, with the transformer couplings held at optimum, the i.f. gain control should be used.

The h.f.o. pitch control gives a variation of 8 Kc. each side of zero beat. Because of the very sharp selectivity of the selective circuit, it is found that a signal peaks up on the side to which the h.f.o. pitch is set. When interference is present, it can often be eliminated by reversing the h.f.o. pitch to the other side of zero beat and then slightly retuning. In effect, signal signal reception is possible.

Standby Switch.—The standby switch is fitted with a long "dolly" (operating lever) so that there is no making it from the other switches. The switch is fitted to the standby switch, the h.f.o. pitch is set to the other side of zero beat and then slightly retuning. In effect, signal signal reception is possible.

Pick-Up Terminals.—Provision is made for the use of an external crystal or magnetic pick-up and these terminals serve another useful purpose—a signal from a separate monitor (c.w. or telephony) can be fed into the h.f.o. and the latter is used as a monitor or loudspeaker, thereby rendering unnecessary an external switch.

"S" Meter.—Some operators like to have available an "S" Meter, which instrument can be very useful for the comparative reception of telephone transmissions and as a tuning indicator. Other operators, and particularly those whose main interest is c.w. do not require an "S" meter, the latter is therefore made an optional extra. It takes the form of a decibel measuring scale to match the receiver and with a pointer which can only be moved by inserting in the socket at the rear of the receiver to bring the "S" meter into use.

Power Requirements.—The "750" receiver is designed for operation normally on a.c. mains of 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000, 2100, 2200, 2300, 2400, 2500, 2600, 2700, 2800, 2900, 3000, 3100, 3200, 3300, 3400, 3500, 3600, 3700, 3800, 3900, 4000, 4100, 4200, 4300, 4400, 4500, 4600, 4700, 4800, 4900, 5000, 5100, 5200, 5300, 5400, 5500, 5600, 5700, 5800, 5900, 6000, 6100, 6200, 6300, 6400, 6500, 6600, 6700, 6800, 6900, 7000, 7100, 7200, 7300, 7400, 7500, 7600, 7700, 7800, 7900, 8000, 8100, 8200, 8300, 8400, 8500, 8600, 8700, 8800, 8900, 9000, 9100, 9200, 9300, 9400, 9500, 9600, 9700, 9800, 9900, 10000.

On occasions it may be desired to operate the receiver from a battery supply and a special vibrator unit is available to meet this requirement. Listed under the "S" meter is a "Knock Out" cabinet, a small cabinet which matches the receiver, and is fitted with plugs for connection to the receiver. The "S" meter is a 6 volt accumulator is in the region of 6 amperes.

Conclusion.—Although the foregoing description of the new Edystone Receiver is fairly lengthy, it still does not cover the subject completely, not do we have time to include the "Knock Out" cabinet, but we have gone into the design of the receiver. But enough has been said to enable the reader to judge for himself the merits of the "750" receiver. It is an Amateur and Professional Communications and for Broadcast Reception on high and medium frequencies.

The above details have been supplied by the manufacturer, Edystone Communications, Ltd., 115, Victoria Road, England—and described by J. N. Walker (G3JL), The Australian Factory Representatives are R. H. Cunningham Pty. Ltd., of 215 Stanhope St., Melbourne, Victoria.

DX NOTES BY VK4QL

For the week-end of 12th and 13th August, I don't think there were many VK Hams interested in DX, the attraction being the 1950 Remembrance Day Contest, and what a party! Each year this Contest is creating more and more interest, with more and more taking part.

Many of the keen DXers who have been hibernating while the DX has been so poor, crept out of their cocoons for this week-end and have apparently gone back to them as I have been unable to get any scores to include in these notes.

Conditions in Townsville were rather good for the Contest, 3.5 Mc. on the Saturday night and the lack of DX signs on 14 Mc. on the Sunday afternoon, enabled us to hear the weaker VK signs. 4TU and I tried to work 7 Mc. in the early hours of the morning, but more than half a mile is required to let two use that band at such close range. 4TU worked UA4FE on 7 Mc. in the middle of the Contest. Wouldn't it, with me needing Europe for 7 Mc. W.A.C. Two South Africans were also heard in the Contest on this band. The only scores I know of over the 400 mark are: 2PA 617, 2EO 593, 4QL 445, 4TU 425. Have not heard any of the VK6s or VK7s to see what happened over there.

As was anticipated, the DX on all bands has been very erratic and it looked as though these notes were going to have very little in the way of DX news. But, as I always say, you never know when the bands will "turn it on." This was borne out on the 14 Mc. band the week-end following the R.D. Contest, prior to a fade-out on the Sunday afternoon.

I find that just before a good fade-out is a real DX time, and this was the case on the Friday and Saturday. I managed six new countries out of the contacts made. I think the most interesting contact was PILS, who was on a Dutch weather ship, the QTH being 52°N and 20°E. QSL address is Box 400, Rotterdam.

The next week-end the same thing happened, but the noise level was well down, enabling the weaker DX to be heard. All over the world this year Hams have complained about the high noise level on the 14 Mc. band. Well, this week-end it was missing. The best catch this time was 8S4AX, whose QTH is Saarbruecken, Saar STR9. He advised there are four stations operating in the Saar. Strange to say no "dog pile" formed on him and he made a couple of fruitless CQs and called a couple of VKs with no result. Guess he was thought to be just another commercial in the band.

Some of the DX stations who more or less had a prefix to themselves are having competition, e.g. KV4AQ and KV4AU have been worked as well as KV4AA. A number of SP, OE, PJ, and HA calls have been heard. Some of the calls missing from the bands for some time are FN8AD, CRIOAA, FI8ZZ, VR5PL, and FUBAA. CR9AG has left Macao and from what he told me is going on a bit of a world tour.

Some of the rarer calls which have been heard or worked this month are: TG9AD, Box 299 Guatemala City; TA3AA, TA3FAS, UG6WD, 9S4AX QSL via D.A.R.C., PJ5FN, PJ5RE, HISS, KS4AC Swan Is., c/o. Tampa Florida; VPINW, PZIAL, Box 226, Surinam; PK5AA, Radio Stn. Balikpapan; FQ8AC, Box 175 Bangui; LA4ZZ, VR1B, TF5TF, VP800, via VP9D. Except for about two of the above, the stations were heard between 2 p.m. and 11 p.m. E.S.T. QSLs received from TF3AR, VPTNM, VPTNU. One also received from FN8AD for our VK3 contact. Did anybody ever get a QSL from FI8ZZ? Haven't heard of any myself.

A certain VK5 has never heard of the "Gentlemen's Agreement." Was running a sked the other night on phone in c.w. band with PK4DA. DX was coming through fairly well at the time here.

Have you had a look at the Station List in the latest issue of the Short Wave Handbook put out by "Radio and Hobbies"? Did you notice in the overseas station list the number of stations shown operating in the 7 Mc. band? I think 2JU could do the Hams a service if he gets all the details of the broadcasts and submits them to Federal Executive for action to be taken up with the right people. What about it John?

● The thought for the month: "The Ham never uses the air for his own amusement in such a way as to lessen the pleasure of other fellow Hams."

DX C.C. LISTING

OPEN			
VK3RE (4)	..	40	260
VK6RU (9)	..	39	111
VE3RX (1)	..	40	167
VK4HR (7)	..	40	167
VK6PH (13)	..	40	161
VK3DI (2)	..	40	160
VE8BO (8)	..	40	160
VK3JE (12)	..	39	154
VK4EL (10)	..	40	140
VK4DO (15)	140
Endorsement			
VK2AHA (9)	..	125	..
VK4PJ (22)	..	120	..
New Members			
VK3TI (37)	..	103	..
VK2HO (28)	..	103	..
VK2TG (59)	..	99	100
C.W.			
VK6AZ (4)	..	40	177
VK3EO (8)	..	40	158
VE2CZ (11)	..	40	161
VK3PH (15)	..	39	165
VK5W (4)	..	40	140
VK6EL (9)	..	40	140
VK3KB (10)	..	39	133
VK3AL (5)	..	40	133
VK4HR (8)	..	40	131
VK4RP (11)	..	35	125
Endorsement			
VK4DO (20)	..	113	..
New Members			
VK6KA (28)	..	126	..
VK3XK (20)	..	105	..
VK4PJ (29)	..	105	..
PHOM			
VK3JD (11)	..	37	146
VK3EE (10)	..	37	143
VK6KX (4)	..	37	140
VK3BE (2)	..	37	137
VK6RU (5)	..	37	133
VK6DD (6)	..	37	130
VK3SX (11)	..	35	123
VK4HR (12)	..	35	123
VK4KS (9)	..	31	121
VK4JP (8)	..	31	114
New Member			
VK2ARA (15)	..	102	..

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

OCTOBER, 1950

Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones:—

Zone	Region	Terminal
1	Western Europe	London
2	Mediterranean	Cairo
3	N.-West America	San Francisco
4	Central America	Barbados
5	South Africa	Johannesburg
6	Far East	Manila

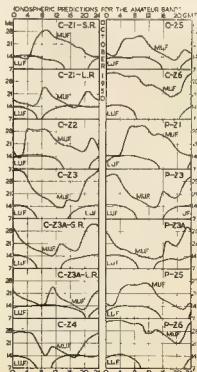
The Perth charts are similar to those based on Canberra.

QUIZ

The Prediction Service welcomes comments on the accuracy of its predictions. In particular, answers to the following questions on the Canberra-San Francisco circuit would be useful:—

1. Were good conditions experienced on 7 Mc. for the period 0700 to 1500 hours G.M.T.
2. Was the 14 Mc. band workable between 1200 and 1500 hours G.M.T.?
3. Was the 28 Mc. band workable for several hours around midnight G.M.T.?

Answers to the Quiz should be sent to the W.I.A. and should, if possible, refer to consistent results obtained on the majority of days in the months.



FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

SYDNEY STATIONS ACTIVE ON 576 Mc.

The following list, sent in by VK1LQZ, gives details of the surprising increase in 576 Mc. activity in the Sydney area.

VK1ANF—Two RL18s, 5 watts, superregen. Rx, corner reflector ant., 12 miles greatest dist.
VK2AZA—Two RL18s, 5 watts, ASB1 Rx, Helix ant., 18 miles
VK1ABZ—Two RL18s, 5 watts, superregen. Rx, 18 elements ant., 12 miles
VK1AWZ—Two RL18s, 5 watts, corner reflector ant.
VK2WAZ—Two RL18s, 5 watts, superregen. Rx, 18 elements ant.
VK2YXZ—Two RL18s, 5.5 watts, superregen. Rx, Helix ant., 9.9 miles.
VK3YR—One RL18, 9.5 watts, co-ax mixer (1N21) stably Rx, 18 elements ant.
VK2WV—Two RL18s, 5 watts, superregen. separate chassis, Rx, x 6 ant., 18 miles.
VK2VHR—Two RL18s, 5 watts, superregen. Rx, Helix ant.
VK2AJA—Two RL18s, 3 watts.
VK3PT—Two 5012s (on way), superregen. Rx.
VK2XG—Two RL18s, 3 watts.
VK210—Superregen. Rx, Helix ant.
VK210H—One RL18, 2.5 watts, superregen. Rx, Helix ant.

2WJ at 11 a.m. are planning an expedition to Mt Boyce (8,775 ft) on 17th September with 270 and 44 Mc. equipment. 2ANF had an informative letter from VK2 describing the 576 Mc. gear used and the results obtained down south. This has stirred 2VQZ to construct the above table showing the status of equipment and results of various stations who are active on this band. 210 is the furthest south (by about 1 mile) station on this band in the Sydney area. One Cronin, with his double conversion superreg., has heard 2ANF, 21R, 2FR, 2WJ, 2AV, 2DF, 2VHR, 2WZ, 2QW, 2NG, 2ANF, and 2NX. Col Geoffrey, another non-transmitting member, has a 505 superregen. Rx on 576 Mc.

144 Mc. FIELD DAY AT STAWELL

From 338 we have news of the 144 Mc. Field Day held at Stawell on 10th September. "There was a good number of portable gear and much working around the district. Before leaving Ballarat, I arranged with 3BL (Eric) that we would call and he would listen for us on the hour and half-hour during the afternoon. We set up our station, operated from 15V, via an inverter and also a 12V, N. 11 generator, consisting of my rig, a converted L.F. and three 1000-ohm 500 Ohm line fed, and a speaker receiver which belongs to Len. Ron Wilkinson, also of Ballarat, who accompanied us and which consisted of two stages of p.p. broad band 500, into a 0.005 micro and 0.05 micro, A.T. at 11 Mc. into a commercial D/W Rx, and which really goes! At Ballarat he receives the Westmore and (treble) boys, also Kevin, 3ARR, at Westmore, at good strength on a 4 over 6.

"The first hour was a washout, due to a 144 venenble, but we stayed on and listened on a quiet tone. First signal heard was 3RR at McNeil. Reliability 5 strength, a co. peaks with 40dB. We were directly on Melbourne, no reflections of the range. Then Eric from Ballarat at 84.90 plus. Both then also were heard consistently during the afternoon, until 1645 when we heard 3RR very weakly and had QSB, but our batteries were nearly out from calling those stations and we had to close, no contacts with those stations having made."

50 Mc. ACTIVITY

NEW SOUTH WALES

There have been no Interstate openings during the month but 2ADT, Newcastle, has been worked from Sydney. 2VW (ad his beams down and did a perfect job on the tower. Vaughan hasn't been too well and has been parcel off to the mountains for a few weeks where he'll probably hunt the shacks at 2LZ and company. V.M. members, also the Sunday night broadcasts from 2WT, 2EV made a rare appearance on the band and kept his fingers crossed during the QSO, watching the power supply for smoke. 2VW, in busy re-conditioning a manual organ which he says is 190c wiring up a telephone exchange with rubber tubing.

2BO has cleaned out the shack which is apparently a big thing. 2LZ has reappeared on the band after an absence of two years during which he has built up a rig with a pair of 807s in the final. Cliff puts a strong signal into Sydney city but from a dipole ten feet high. 2ANF was to be ready for two and six cross-band contact with Newcastle by the summer time. 2BL is having QRM trouble from car ignition on Pacific Highway and reckons cars should have transmitting licenses (a noise generator is not required in College Street either). 2ABH is almost ready to go with a pair of 600s. He has been hiding all sorts of resonant circuits in the final stage with his grid dip coil.

later. Second op. Jack, at 2XX, is off on a visit to 65 band with a list of gear to bring back. Two "double axe" won't sound so bad-country for a while. 2ZV makes rare appearances on the band with an 854 in the final. Why so elusive, man?

VICTORIA

Rez, 3V1, at Ormeo, is now transmitting 60 W each Sunday evening from 1930 to 2000 hours and is looking for contacts. Rez is a new contact for the v.h.f. gang, so watch the band for his signal to break through. 3VW and 3VA have both been presented with homemade oscillators and both 3VWs are doing well, likewise the harmonics. Congratulations are offered to Ken and Don.

SOUTH AUSTRALIA (by C. H. Castle, VK5KL)

Each month these notes will appear by the above writer to fulfill a long-held wish and request to the VK5 Council by the country members to whom

the main contact with the city affairs is via this magazine. My whole interest is in v.h.f. and I have a practical understanding of the country members' difficulties on the v.h.f., having spent three years in Darwin operating 50 Mc without local support. In the lacking of personal pains and designs, owing to the shortness of time this month, I would like to be considered as a question box. 48 country members, send me your v.h.f. problems and where possible I will try to solve them. Write me your activities to 25 Rose Terrace Wayville, or if in town, ring 11 8546.

With the weather improving and the DX season approaching, now is the time to check over your gear or build off new equipment. December 1 can be considered as the start of the real DX, so go to it. 3VW, 3VD has re-routed his 50 Mc. four element beam, but the prop. motor is not started as yet. 2GL still re-broadcasting W.L.A. session on Sundays at 144 Mc. Has nice collection of mix converters for all bands. 3MK heard on 7 Mc. phone: why the migration Ron? 5GB inactive recovering from appendix operation. 3EL has a r.t. converter under construction, have 8-4 Mc. xial operating on 6th harmonic for the oscillator. Well cheap, I hope to have a good round up next month.

IN ADDITION TO STOCKS OF COMPONENTS ADVERTISED IN PREVIOUS ISSUES OF "AMATEUR RADIO" WE NOW HAVE SUPPLIES OF THE FOLLOWING LINES AVAILABLE:—

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NEW SOUTH WALES

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Meeting Night.—Fourth Friday of each month at
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byway, Forbes; South Coast & South-
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son St. and Marine Pde., Maroubra.

VICTORIA

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Secretary.—C. Dyer (VK3XU), 19 Langdon Ave.,
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Administrative Secretary.—Mrs. S. May, Law Court
Building, 191 Queen St., Melbourne, O.I.
Meeting Night.—First Wednesday of each month at
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O'Meara, VK3AK, Killgrew, Westmore;
North Eastern: T. E. Tennant, 10 Harold
Rd., Shepparton, Far North Western: J. Felle,
101 Leamon Ave., Mildura; Eastern: R. O. Sci-
lar, VK3AH, Timarara; North Western: C.
Gus, VK3ACE, Cumming Ave., Birchb.

FEDERAL

REMEMBRANCE DAY CONTEST

Members have caused considerable delay and in-
convenience by forwarding Contest Logs direct to
the Federal Secretary instead of to the respective
Divisional Councils. With all Federal Contests it is
necessary that members forward their logs to the
Divisional Council in order that their financial
status and membership be ascertained. The
Divisional Councils are then responsible to see that
logs are forwarded to the Federal Contest Committee
for checking.
Members are therefore asked to remember to do
this, and by so doing help the already overburdened
Federal staff to have the final results available for
publication within a reasonable time after the con-
clusion of a Contest.

● Some members still omit to sign their logs! Remember this mistake makes your log invalid be-
cause anyone can type or write a lot of contest
contests and put your call sign at the top. Your
signature, checked against your original application
form signature, proves the authenticity of your log
entry.

DX C.C. MANAGER

With the greatly increased membership of the
W.A. it has been found necessary to expand the
staff of Federal Executive to cope with the increase
of secretarial work involved, which in turn we hope
will increase the efficiency of Federal Executive to
the benefit of all members.

In this regard VK3BZ, G. I. Morris ("Morrie"),
has gladly accepted the honorary position of DX
C.C. Manager and will be spending up the presenta-
tion of this certificate to him. "Morrie" has
also indicated his willingness to check W.A.S. 50
Mc. and Above for members interested in the v.h.f.
bands.

● To avoid the necessary delay involved in
forwarding cards to G.P.O. Box 8311W, members are
asked to forward their verification cards direct to
"DX C.C. Manager, G. I. Morris, Esq., 50 Eighth
Street, Parkdale, Victoria."

In the meantime, members who have obtained
DX C.C. and W.A.S. 50 Mc Certificates and not yet
had them issued, are asked to be patient for a
week or two until the system becomes operative.
Your Certificates have not been lost!

WI BROADCASTS

All Amateurs are urged to keep these fre-
quencies clear during, and for a period of 15
minutes after, the official Broadcast.

VK2WL—Sundays, 1100 hours EST, 7128 Kc.
and 2000 hours EST 50 and 144 Mc. No
frequency checks available from VK2WL
Intra-State working frequency, 7128 Kc.

VK3WL—Sundays, 1130 hours EST, simultane-
ously on 5740 Kc. and re-broad-
cast on 60 and 144 Mc bands. Intra-State
working frequency 7185 Kc. Individual
frequency checks of Amateur Stations given
then VK2WL is on the air.

VK4WL—Sundays, 0900 hours E.S.T. simultane-
ously on 5740 Kc., 7128 Kc., 14488 Kc.,
33.6 Mc. and 144.125 Mc. Frequency
checks are given two nights weekly, and
the time are announced during Sunday
broadcasts. 7405 Kc. channel is used from
1000 to 1030 hours each Sunday as VK4
query service to VK4WL.

VK5WL—Sundays, 1000 hours SAST, on 7126
Kc. Frequency checks are given by VK5DW
by arrangement only on the 7 and 14 Mc.
bands.

VK6WL—Sundays, 0930 hours WAST, on 7126
Kc. No frequency checks available.

VK7WL—Second and Fourth Sundays at 1000
hours E.S.T. on 7126 Kc. No frequency
checks are available.

SILENT KEY

VK2ZS

It is with deep regret we an-
nounce the passing of Gerry
Challender, VK2ZS, on Monday,
4th September, 1950.

FEDERAL CONSTITUTIONAL ALTERATIONS

F.E. on behalf of the Federal Council of the
W.A., hereby gives notice that it is intended to
alter the Federal Constitution of the W.A. (as
amended 1947):
Section 41A, as follows—Delete the word
"thirty" and insert the word "fourteen" in lieu
thereof.

Mid 67A, Membership Transfer: "Where a member
transfers from one Division to another (1) The
recipient Division shall receive him as a dual
call member for the remainder of the financial year
provided he was fully financial before departing
from the issuing Division. (2) The Secretary of the
issuing Division shall advise the Secretary of the
recipient Division of the issuing transfer and of
the members' financial status and grade."

Mid 43A: "That in matters of finance involving
all Divisions, a majority vote of at least 5 to 3
of the Federal Council be required for the passing
of the motion."

DX C.C. CERTIFICATES

Because of repeated criticism of the existing DX
C.C. Certificate, Divisional Councils in each State
have been requested to forward to Federal Executive
their Division's comments on the quality and

W.I.A. ACTIVITIES CALENDAR

Sept. 22-24: VK-ZL DX Contest (a.w.).
Sept. 29-Oct. 1: VK-ZL DX Contest (phone).
October 6-8: VK-ZL DX Contest (a.w.).
October 13-15: VK-ZL DX Contest (phone).

QUEENSLAND

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Secretary.—R. O'May, VK7GM, Box 371B,
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Divisional Sub-Editor.—S. Eacell (VK7SJ), 77 Mole
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Northern Zone Correspondent.—R. H. Kilby, VK7RN,
5 Galvin Street, Launceston.

standard of this Certificate preparatory to requesting
specimen designs for a new Certificate.

Members who are concerned with the drawing
board and asked to take an interest when the
matter is brought up in their Division and submit
designs. Don't leave it to the other member!

ADDITIONS, ALTERATIONS AND DELETIONS TO
AMATEUR CALL SIGNS—AUGUST, 1950

Additional—

VK130—G. C. Page, 59 Simpson St., Tumut.
1A2N—R. S. Scauncrow, 14 Parklands Ave.,
Lawn Cove.
2A1H—R. H. Corcoran, 23 Glasgow Ave., Bondi.
2A1F—J. C. Fairweather, 255 Fisher St., Broken
Hill.
2A2B—K. H. Bradford, 1 Centennial Ave., Land
Cove.
2A2F—J. J. Freeman, 90 Rosemont St., Punch-
bowl.
2A2B—E. F. T. Reynolds, c/o S.S. "Mangana"
2A2W—D. J. Medley, 10 Kennett St., Bondi.
VK180—D. G. Gilder, 28 Clarendon St., East
Newbourne.
VK180S—O. K. Scouler, 278 Mt. Alexander Road,
Essendon.
2A2V—V. E. McKenna, Christian Bros. College,
Queensberry St., North Melbourne.
2A2W—T. L. Elliott, Owen Street, Boroona.
VK184—E. D. Naele, 86 Felix St., Woolswain,
B.H.
4FQ—J. F. Murdoch, 3 Goodall St., Toowoomba.
VK184—R. L. Archibald, 3 Peacock St., Hyde Park.
2EO—O. E. A. Cameron, Flying Doctor Base,
Alice Springs, NT.

Alterations—

VK180—176 Albion Street, Annandale.
2A1C—108 Quarry Road, North Ryde.
2A1D—Let 46, Sealed Avenue, North Manly.
2A1E—17 Bray Avenue, Earlwood.
2A1G—"Bushlands", 15 Linden Avenue, Pymble.
2A1H—85 Sunningdale Crescent, Castlereag.
2A1J—71 Leura Road, Auburn.
2A1D—"Marell", Fernleigh Road, Waggas.
2A1L—108 Quarry Road, North Ryde.
2A1K—7 Chinnindell Avenue, Spring.
2A1D—35 Prince Street, Moolman.
2A1D—65 O'Donnell Street, North Bondi.
2A1K—77 Girdle Rd., Auburn, via Gosford.
2A1J—53 Hendy Avenue, Cullary.

VK3CO—5 Service Street, Ballarat.
 3HU—9 Bethell Avenue, Parkdale.
 2NW—1 Oxford Street, Box Hill.
 2SR—142 St Beach Road, Melbourne.
 8AB—232 Victoria Parade, East Melbourne.
 3VD—1 RAAF Station, East Sale.
 3APV—1 Cape Street, Colyton.
 3F—1 Falkner Road, Newtown, Geelong.
 3ANW—1 Oxford Street, Box Hill.
 3AR—Kent Road, Hamilton.
 3ASB—3 Wellington Street, Box Hill.
 3ABX—Flat 8, 15 Jersey Street, Balwyn.
 VK4RD—Chester Street, Thursday Island.
 VK4RN—1000 Rennie Street, Perth.
 VK4RI—70 Alexander Street, Fremantle.
 2KY—8 Multrum Road, Glenlogie.
 3RZ—8 Barga, Street, Broadview.
 VK501—1000 Rennie Street, Perth.
 4QR—c/o Flying Boat Service, Meekatharra.
 6KX—47 Cecil Street West Perth.

VK2UC—Cancelled.
 2NV—Cancelled, now operating under VK3VHG.
 2AM—Cancelled.
 2AV—Cancelled.
 VK4RD—Cancelled.
 VK4AB—Cancelled, now operating under VK2AMW.
 2HW—Cancelled, now operating under VK4TP.
 3V—Cancelled, now operating under VK4IP.
 2K—Cancelled.
 2V—Cancelled.
 2V—Cancelled.

FEDERAL QSL BUREAU

RAY JONES, VK3RI, MANAGER

The new address for the Central Zone QSL Bureau is: RZMIP, Isaac R. Price, Box 64, Diaklo Heights, Central Zone.
 The I.A.R.U. Short Wave Amateur Convention 1949 was held at Kiel Bismarck, near Frankfurt (Main), Germany, from 8th to 10th September. A comprehensive programme in entertainment and technical matters was held and was well attended. Included in the lectures on all aspects of the technical side of Amateur Radio. An exhibition of Amateur built equipment was held, and numerous competitions included in the programme. The entire function was broadcast by the Convention station DLOK over the Amateur Bands. Many visitors from adjacent nations were present at the Convention.
 The I.A.R.U. Convention 1950, will be held in June, 1950, at Kiel Bismarck. If possible you might let the fellows know that if I owe them cards, I have not received them, and my log for 1949 is not yet ready. I am sure that they will be pleased to QSL these if they will apply direct. His QTH is Box 387, Diaklo Heights, Central Zone.

For the benefit of vhf enthusiasts, XEIA advise that in addition to operating on the 80, 40, 20 and 10 metre bands during the forthcoming VK-21, 22 and 23, he will be now continuing on 30, 60, 90, 120, 150, 180, 210, 240, 270, 300, 330, 360, 390, 420, 450, 480, 510, 540, 570, 600, 630, 660, 690, 720, 750, 780, 810, 840, 870, 900, 930, 960, 990, 1020, 1050, 1080, 1110, 1140, 1170, 1200, 1230, 1260, 1290, 1320, 1350, 1380, 1410, 1440, 1470, 1500, 1530, 1560, 1590, 1620, 1650, 1680, 1710, 1740, 1770, 1800, 1830, 1860, 1890, 1920, 1950, 1980, 2010, 2040, 2070, 2100, 2130, 2160, 2190, 2220, 2250, 2280, 2310, 2340, 2370, 2400, 2430, 2460, 2490, 2520, 2550, 2580, 2610, 2640, 2670, 2700, 2730, 2760, 2790, 2820, 2850, 2880, 2910, 2940, 2970, 3000, 3030, 3060, 3090, 3120, 3150, 3180, 3210, 3240, 3270, 3300, 3330, 3360, 3390, 3420, 3450, 3480, 3510, 3540, 3570, 3600, 3630, 3660, 3690, 3720, 3750, 3780, 3810, 3840, 3870, 3900, 3930, 3960, 3990, 4020, 4050, 4080, 4110, 4140, 4170, 4200, 4230, 4260, 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9270, 9300, 9330, 9360, 9390, 9420, 9450, 9480, 9510, 9540, 9570, 9600, 9630, 9660, 9690, 9720, 9750, 9780, 9810, 9840, 9870, 9900, 9930, 9960, 9990, 10020, 10050, 10080, 10110, 10140, 10170, 10200, 10230, 10260, 10290, 10320, 10350, 10380, 10410, 10440, 10470, 10500, 10530, 10560, 10590, 10620, 10650, 10680, 10710, 10740, 10770, 10800, 10830, 10860, 10890, 10920, 10950, 10980, 11010, 11040, 11070, 11100, 11130, 11160, 11190, 11220, 11250, 11280, 11310, 11340, 11370, 11400, 11430, 11460, 11490, 11520, 11550, 11580, 11610, 11640, 11670, 11700, 11730, 11760, 11790, 11820, 11850, 11880, 11910, 11940, 11970, 12000, 12030, 12060, 12090, 12120, 12150, 12180, 12210, 12240, 12270, 12300, 12330, 12360, 12390, 12420, 12450, 12480, 12510, 12540, 12570, 12600, 12630, 12660, 12690, 12720, 12750, 12780, 12810, 12840, 12870, 12900, 12930, 12960, 12990, 13020, 13050, 13080, 13110, 13140, 13170, 13200, 13230, 13260, 13290, 13320, 13350, 13380, 13410, 13440, 13470, 13500, 13530, 13560, 13590, 13620, 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retary, Ted Scott, tendered his resignation and the Assistant Secretary, SAIX, was appointed to carry on. The meeting closed on record the good work Ted has done and wished him well in his new job.

The main item of business was the formation of the rules of the "Honorary Membership Certificate" for Australian and Overseas Ham. A full set of rules appear elsewhere in this issue. On fulfilment of the rules, an illuminated certificate of Honorary Membership will be issued to the successful applicant. The club asks you to read the rules very carefully, further details can be had from members when in QSO.

Len ("Lento") Jackson chose for his lecture "Sound on Film Recording." After the lecture, the President expressed on behalf of the members his appreciation of Len's fine effort. AEM reported on the practical night recently held and stated that the amateur is well under way. The club authorized Ed to purchase a suitable receiver for club use. Donations still come in in the form of gear for which the club is very grateful. John Dawes reported on his visit to the V.R.I. Radio Club's annual meeting and conveyed that club's greetings to this club. There being no further business, the meeting closed at 2330 hours. The club meetings are held on the second and third Friday evenings of each month at the Town Hall, Nepean Highway, Mordialloc. The next meeting (30th October) will be a lecture on "Eliga Frequency Transmissions," given by a "high up" in the R.A.A.F. We would like to see as many of the boys as possible at any of our meetings.

EASTERN ZONE

The main subject this month is the inaugural meeting of the Sale Sub-Branch of the W.L.A., which took place on 18th August at the residence of 347, Rose Schmidt. Those present were 3SS, 3QQ, 3HQ, 3YG, 3ANF, 3APQ, 3GZ, 3ARK and a flying brass-potter, Bud Pennicott, of the R.A.A.F. Bud has his ticket, but as yet no call sign. Our Zone Secretary, 3GZ, opened the show by reading a long streamer, full of "where-as" and "heretofore," pertaining to the formation of sub-branches, etc., and it was decided to carry on with the sub-branch, in spite of all the long words in the streamer. The group will be known, locally at least, as the Sale Radio Club, with the club secretary and secretary assisting the radio minded lads of the district, to extend their knowledge of the noble art of Ham

Radio and eventually gain their tickets. We intend to hold regular meetings in our various towns and this should give the beginners considerable aid through getting to know each other and being able to ask questions to which the handbooks don't always seem to have the answers.

3ARF was elected President and 3SS Vice-President; Howard Vinning, 3YG, is Secretary and Treasurer. That worthy warrior, 3GZ, when enthusiasm reached its height, pulled out a bottle of W.L.A. enrolment forms and said, "Sign here, please." The four back slides of the move paid up at once! On completion of the signing, the speaker said the very nice supper served by the much-bettered halves of 3LY and 3GQ. We then inspected Ron's rack and panel gear which he is building up and after much ear bashing, we proceeded homewards.

The following evening 3GZ attended a meeting of would-be Hams in Balmaine and it looks as though 80 metres will have some more QRM in the near future. Graham collected five more applications for the W.L.A. there, which, with one from Tuncann, gives the zone ten new members for the month! Best that, if you can!

Apart from the foregoing, personal items this month are scarce. 3SS is the proud possessor of a nice new Chet—see it at our Conventions! Edith also had trouble recently with twisted feeders—have you all woken up yet chaps? 3WR has been very ill, but is picking up now. I am pleased to say 3US/3VL have the 6 metre beam 45 feet up now—these v.h.f. cranks! Owen has been inactive for about three months so someone else has been using her call sign. Any decent cards Green?

The hook up proceeds each Sunday as usual, 3PR, 3LV, 3TH and 3ANF being well to the fore. A new power tranny has turned up for 3ARK so after three months of phone fishing, it will have to limit off the 80's again. Let 3ARK know what's doing chaps, especially our Balmaine associates, as if no can hear, no can write notes.

SOUTH WESTERN ZONE

On the 17th August 3AGD and your scribe, 3AKR, departed from the temperate south west, for the mainland as they were travelling in two separate cars. It was decided to install 144 Mc. mobile equipment in each car, consisting of super-vacuum modulated oscillators, lots of tubes, and a few discs in the timbered and hilly country whilst operating mobile. On the Sunday at Mt. Buffalo, we had a

welcome visit from 3RR and 3AT who brought their VTLs and harmonics up for the day. At the end of the week, heated and tired, we started for home, calling at Ken's (3KK) shack on the way. 3WT had some choice DX in the form of a visit from PHILIP from Switzerland. I wish Peter had been able to visit us out here, he would have been able to tell us all about the snow over there. Bill also has a 34 watt modulator for his 7A12D now and in no time at all will be really pushing out a signal. 3TE decided the other day to blow the cobwebs out of his 75 metre coils and in so doing worked on PHILIP from Switzerland. I wish Peter had been working out f.h. and the country list is really climbing. 3HJ will soon be shifting into the new home and shack; will you have to shift the chimney and see beams, Neddy.

3MO is still working the DX on 40 and only wants Europe for W.A. on that band. 3GU has his new controlled carrier rig going, says input swings from 30-70 watts on speech. 3BJ has been heard on 80 lately and getting out a fair sort of a signal too; believe Bert has been having trouble with the over area, certainly hope it is better by the time this goes to print.

By the way, I would like to remind some members that there is a hook up on the first Sunday of EVERY month at 10 a.m. I would also like to ask those chaps who have not been on these hook-ups to make an effort to do so in the future. After all, how can one or two chaps discuss matters relating to the whole zone.

The Geelong gang have not been so active over the past month, guess the cold weather has a lot to do with it. Also some illness. 3AOJ has built up a new v.f.o., also has a new mike which has improved his quality. 3AJT still working some good DX on 80 metres; has a new Rx, a "750". 3AB: will soon have his new beam up for 80 metres and has been busy wiring up the motors for it. 3HW heard on 80 recently; has made a xtal locked converter for 144 Mc. 3ARK still having regular contacts on 144 Mc. is building a new converter and has put a lot of work into it. 3ALQ has a new v.f.o. Have heard very little of 3WT, 3GK and 3GZ. 3AGN is a new solo controlled carrier, in spite of his very low antenna, he was hard working. VK4 recently. 3AGC has built up a portable transceiver on 144. 3ABE was home for a short period and was on for a time. 3BU had a couple of contacts on 144 using his 582

UCC MINIATURE BEAD CERAMIC CAPACITORS (Type SPG.1)



U.C.C. Miniature Bead Capacitors cover a range of capacitance with an overall ratio of 1000:1 in a small size. They are virtually non-inductive, and have a high insulation resistance at all working temperatures. The lower values are suitable for coupling capacitors. The smallest capacitances replace the unsatisfactory makeshift of twisted wires, whilst the higher values are especially suitable for by-pass use in television, F.M. and radar receivers, and for the I.F. filter in normal broadcast receivers.

CAPACITANCES	0.47 pF, 0.68 pF, 1 pF, 1.5 pF, 2.2 pF, 3.3 pF, 4.7 pF, 6.8 pF, 10 pF, 15 pF, 22 pF, 33 pF, 47 pF, 68 pF, 100 pF, 150 pF, 220 pF, 330 pF, 470 pF.
TOLERANCE OF CAPACITANCE	Guaranteed not less than —20% of stated value at 20° C. (on values 3.3pF and above). Nom. capacitance below 2.2 pF. Test conditions 10V. RMS. at 130 Kc/s.
INSULN. RESISTANCE	Greater than 5,000 Meg. at 1,500V. D.C.
WORKING VOLTAGE	500 Volts D.C. or 250V. RMS. A.C. 20 CPS.-60 CPS.
TEST VOLTAGE	1,500 Volts D.C.
MARKING	Capacitance read ink on white ground.
NOTE	Dimensions shown are for capacitors with Finish "C." Finish "A" increased overall dimensions by approx. 2 M.M. and Finish "E" by approx. 1 M.M.

★ UNITED CAPACITOR CO. PTY. LTD. ★

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In response to numerous requests for a more universal high tension transformer, we have re-designed our type PT1371-8. It is our belief that the new range of taps will meet the requirements of both "Hams" and "Sound Men" alike. The new PT1371-8 now features the following:—
Primary: 200, 220, 230, 240 volts; **Secondary:** 500, 600, 750, 850, 1,000 volts per side of C.T. at 300 Ma. The price of this conservatively rated item is unchanged by the modification, and is obtainable at the old price of £6/8/1 including tax.

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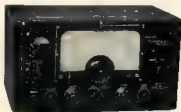
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Listening to TBI on one recent Sunday night and was anxious of the f.b. signal which was received at that time. The TBI signal was very clear and I believe that I will have to admit the transmission was faultless. Congratulations, Brian. Believe "Acker" Anderson is a noted authority on microphones as he was a main mike check by TBI. Was puzzled at the lack of output so upon opening the case, believe it or not, found our mate had forgotten to connect the base out to your amplifier.

For those not so financial and desirous of a radio receiver suggest you walk past a certain Ham's store in Liverpool Street, any time after six p.m. Awaiting from a mailed request to a combination radiogram can be obtained, suggest you leave your ARS out one night Max and see what happens.

A new call to move is TBI which is operated by an Army Signal Corps located at "Yankee". Noticed a DLI amongst other foreign calls listed in the log. Several well-known Hams are in the Unit and so another "radio hungry club" has been formed.

A meeting was convened by TAB with the purpose of forming a North Western Zone. This should be a great boost in fostering Amateur activities in this area as one of their aims is to conduct A.O.C.P. classes which should increase W.I.A. membership. Many of the members of the Zone note find it most difficult to attend Institute meetings at Lancaster, owing to the long journey necessary.

It was whispered Johnie Grace has been deeded from the remoteness of 144 Mc. to 40 metres and now contemplates building a receiver for this particular band. TBI now works exclusively in the form of a G on 40 and was received at 80 pps. Was a surprise until I found the "G" was marine mobile and not a car.

As these notes have been prepared prior to our September meeting, it is intended the Lecture will be given by Mr. Turnbull, continuing his previous lecture on the construction of a portable receiver. A scope will be exhibited and how the c.r.o. can be used in the checking of receivers. Discussion regarding future emergency network practices will be another item. Those who are unable to attend will be another armchair and enjoy the cosy comfort to be had at these meetings!

NORTHERN ZONE

Seems to me that last month I tried to run 30 days ahead of myself and reported the August meeting before it happened—obviously should have read July, sorry but I can't go on talk of August. Our meetings seem to be drawing bigger and better crowds as they go on and this month was no exception. The meeting was very interesting, interesting and informative talk by TXW on the whys and wherefores of a modern h.c. station. Chris is a natural talent to do this and I think that, even being engineer at one of our local h.c. stations and the material presented was very well received. A vote of thanks, albeit proposed by TBI, who is way off in my opinion, but I sincerely and very friendly opposition it seems, was carried by acclamation.

Well, the 1946 R.D. Contest is now but a memory and what a memory! The pounding those poor heads took that nobody's business. The contacts just rolled in one after the other, guess most stations turned up to play their part for their State and pay tribute to the memory of the contest perpetrator. Judging by the activity some really bumper scores will be turned in and the final result bound to be close.

Activity apart from the R.D. Contest has been somewhat desultory during the month. TBIQ has been firing up on 6 getting ready no doubt for the season to commence. The main condition for TBIQ seems to have been blowing transients; after the second one went, Col. working on the usual sequence of three, took one from the junk box and threw it away for insurance, but it didn't stop and guess which just goes to show what a cruel thing fate is. A new converter for 6 and 10 is starting to emerge from the work bench and I, for one, am already following results with an eye to a future similar piece.

Was walking out Lytton Street some time days ago and idly speculating as to which QTH belonged to TFF when to behold an amazing collection of arrays met my eye, beams of all sorts and sizes, and under all the circumstances I stood and gazed and wondered if I were a signal which of the mass I would choose to get myself inside and

reach the ears of the operator. However, judging by the results, they do not themselves out very well. The TBIQ has been transferred to VK3 and we hope he heard from there. While not very active at the moment, it was very active in the meeting taking place that I did not attend and he will be missed by us all. Good luck in the New State, Noel, and it's been nice meeting you.

TBIQ and TFS were in on the R.D. Contest for a few contacts and out at Longford TDS kicked off very well, but struck receiver trouble and he'll have to look luck. The expected card from VK14DS, mentioned as being a hopeful in the batch received by the G.M. Manager from VK3, did not come in, and was still on the waiting list; a compensation for TFS and myself did arrive however this month in the shape of FN4AD, long since written off as one of the "worts". A shortcoming of the contest is that although it will not go into raptures about it, the ionospheric prediction cards for September look interesting, maybe the month is not, things may be well on the up grade.

So, once more it's curtains and, as a resounder, the date in October is the 13th—for jittery members a supply of rabbit's feet and lucky charms will be available at the door at a small charge, proceeds to go to the society for destitute Hams—so if there are any other notes . . .

CORRESPONDENCE

The opinions expressed in these letters are the individual opinions of the writers and do not necessarily coincide with those of the publishers.

CONTEST RESULTS

Lancelotti Ave., Beaumont, S.A.
Editor "A.R." Dear Sir,

I have read, with interest, the rules for the 1950 VK-ZL Contest, and could not help smiling at the heavy emphasis on the 15 minute limit. At the November, 1950, isn't there a rule 15 minute requesting the Contest Committee to return results by a definite date.

Well, seriously, the 1948 Contest—handled in ZL—was not exactly encouraging in that respect; results being published in a rather sketchy manner, and only a few VZs did manage to get in.

In 1949 I really had hopes that VK3 would be quicker on the job, but alas, 15 months have gone by and no one has been able to do it.

Most of the fun of the Contest is lost with that lag in publishing the result, and an effort should be made to get the results in say three to six months. Of course, I am not sure that even the A.R.L.I. is struggling in spite of all their staff and facilities, but nevertheless the high scores are given within three months.

Most of the beauty of the business in hand is asked to devise new basis for Contests which simplifies and reduces checking work?

I remember an Editorial some time ago asking for views on Contests in general and while I am on the subject, I can mention that I believe that there is still a lot of interest in Contests, particularly in the big ones which have been established for some time. I think that it is not too far off to think the average man can manage to participate in more than two or three each year and send the logs plus analysis and so on.

I cannot conclude this letter without expressing my appreciation for the promptness with which the "A.R." arrives every month. In fact I am approaching the point where I am ready to ask you to look for it. If I could only find those test results!

—F. G. HAAS, VY6FH.

[No one understands the problem of having Contest results available within a reasonable period after a Contest than does Federal Executive, but the trouble is always, and will continue to be, that of "no interested members to help" until such time as a Contest Committee is formed to keep Contest matters up to the Federal Executive with the criticism fired at them and despite a united attempt by the Victorian Council to obtain four—only four—members with Contest experience who would take over the responsibilities of putting "this contest business" on a sound footing, to date no definite results have been achieved. Many hands make light work of building a solid foundation of efficiency where chaos existed. Can you—and you—and you, do something NOW! We need your experienced help in forming a Contest Committee in conformity with General Business Item No. 6 of the 1946 39th Annual Convention. Let's hear from you.—Federal Executive.]

BRILLIANT MAGAZINE

"Grand View," Cliff Drive, Katoomba.
Editor "A.R." Dear Sir,

In response to the paragraph which appeared in the June issue of "Amateur Radio" concerning the publication in the United States of a new

magazine in Braille, I wrote to the address given and have received in reply a letter, a copy of which is appended to this note.

I have also forwarded a copy to the New South Wales Division of the Institute, and I would suggest that all concerned should give TBIQ's views on this matter as is considered necessary throughout all Divisions.

The first issue of the magazine referred to in the letter has not yet come to hand, but when it does so, I shall inform you as to the general nature of its contents.

WILLIAM J. KECH, W5KACP.

Dear Bill,

Received your letter inquiring about the new Braille Magazine for Blind Amateurs today and very pleased to inform you about it.

It is called the "Braille Technical Press," and the first issue was released in March of this year. It is a Radio and Electronic guide published monthly for the blind. Edited by Robert W. Gunderson, W410, executive office, 986 Waring Avenue, New York City, 67, New York, U.S.A. The cost of the publication is six dollars a year, and it will be sent to blind hams, short wave listeners, sound engineers and servicemen anywhere in the world.

We hope to reach all blind persons interested in radio, whether they can afford the subscription price or not. Of course it is a tremendous project and a costly one, but it is already off to a good start. Your subscription has been received and the subject list, and you soon will begin to receive copies. After receiving your first copy please write to W410 stating your desire to receive the publication, and that you read Braille. This is important as those not answering will be dropped.

Will you kindly inform the official organ of the B.I. of the publication of this new Braille magazine and that we are anxious to hear from all blind Amateurs, short wave listeners and servicemen who read Braille.

After reading and reading the "B.T.P." we will welcome any suggestions or criticisms you may wish to offer. I am serving on the board of directors, and with other "Blind Amateurs" and "Engineers," will set the policy of the magazine.

At the present time I operate only on 10 metres, both phone and c.w. using a Hallicrafters HTX transmitter, which has a 10 watt vacuum tube power beam, also using a national NC800 receiver with a preselector, and a Miller VFO. I am planning to erect a beam for 30 this summer. I have part time employment as a metallurgy plant and have a guide dog to take me back and forth from work.

You will be greatly appreciated if you will send along any information that you may have on blind people who may be interested in radio. I may write either in Braille or print. Here's hoping you will receive the magazine soon and enjoy it also, and that we may meet on the air some day, very 73.
—EVERETT A. ECKERSON, W1NLN, No. 3 Oaklands Heights, Bethel, Connecticut, U.S.A.

HAMADS

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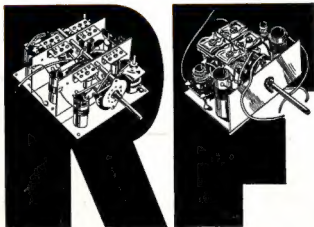
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